THE VETERINARY RECORD

FOUNDED BY WILLIAM HUNTING, F.R.C.V.S., 1888.

No. 25. JUNE 19, 1943 VOL. 55.

Solanin Poisoning in Pigs

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Cases of solanin poisoning are particularly liable to occur in pigs, and a number have been encountered by the writer each year for the last few years. Pigs show symptoms of disease a few days after eating sprouted potatoes. Animals of all ages are affected, but the condition tends to be more acute in young pigs. The symptoms are not diagnostic, and consist mainly of marked dullness and copious diarrhoea. Affected animals show anorexia, a subnormal temperature, and early exhaustion. If feeding with the potatoes is continued, coma results and a considerable number of pigs may succumb. In one outbreak witnessed by the writer, 20 of a herd of 80 pigs died before feeding was discontinued. Generally, however, losses are not severe if the condition is encountered in its early stages. Autopsy shows only a non-specific enteritis. The absence of widespread *post-mortem* lesions generally serves to differentiate the condition from swine fever, to which clinically, at first sight, it bears a strong resemblance.

The poisoning of man and animals by plants belonging to the natural order Solanaceae has been recognised since ancient times. The order comprises about 66 genera with 1,400 species which are found widely distributed over the globe. For purposes of toxicology Sydney Smith (1928) divides the order into three groups according to their active principles :—

(1) The Atropine Group, comprising the genera datura, hyoscyamus and atropia.

(2) The Solanine Group, comprising the genus solanus.

(3) The Nicotine Group, consisting of the tobacco plants.

The Solanine Group contains, in addition to the toxic *Solanum dulcamara* (bittersweet) and *S. nigrum* (garden nightshade), the common potato (*S. tuberosum*) and the tomato (*S. lycopersicum*).

It is the purpose of this brief record to draw attention to the possibility of poisoning animals by feeding potatoes, especially about this period of the year. Although there are fairly numerous references to the condition in the literature, it would appear, from the lack of clinical reports on the subject, that it is rarely recognised in the field. The feeding of potatoes to pigs has increased since the commencement of the war, and since any potato surplus existing at the end of this season is likely to be consumed by pigs, recognition of this condition is of considerable importance. As toxic symptoms follow the feeding of potatoes only when they have sprouted or are diseased, the later diversion to pig feeding of large quantities of potatoes with poor keeping qualities is likely to result in considerable outbreaks of poisoning.

Long (1934), dealing with the position generally, found that sprouted tubers were poisonous to all livestock, although less so if they were boiled and the water was discarded. Chestnut and Wilcox (1898) recorded the loss of six pigs due to eating uncooked sprouted potatoes. Baylis (1943), several years ago, encountered a widespread outbreak of disease in pigs in Stafford. This outbreak, at first, clinically resembled acute swine fever, but was later traced to the feeding of sprouted potatoes. Anthony (1940) states that pigs fed on steamed potatoes which are budding show symptoms of poisoning within a few days. In horses, M'Fadyean (1934) has shown that old sprouted potatoes, even after boiling, are highly toxic. Wallace (1907) recorded the death of eleven horses following the ingestion of small quantities of spoiled and sprouted potatoes. Two test horses fed on the same potatoes also succumbed. Henslow (1934) ascribed the death of a number of cattle to the same cause.

Most authorities are agreed that the toxic principle involved is the glucosidal alkaloid solanin which is allied to the saponins. Potatoes which are toxic may also contain traces of atropine. These toxic entities are present in highest concentration in the sprouts of potatoes which have been stored for some time in the dark. Symptoms of poisoning in pigs appear when a high proportion of potatoes is fed—in the experience of the writer about 50 per cent. of the diet or more. The bodies of the sprouted potatoes also contain the toxic principles but in lower concentration. Experience has generally shown that if the sprouts are removed and the proportion of potatoes in the diet does not exceed 25 per cent. there are no toxic sequelae.

In cases of solanin poisoning in man Sydney Smith describes symptoms of colic, vomiting and diarrhoea, shivering, dilation of the pupil, acceleration of the pulse and respiration, and inco-ordination. In horses, Wallace found that affected animals were dull and died within twelve hours without showing any signs of pain.

For treatment both Wooldridge (1934) and Lander (1912) report successful results following subcutaneous injection of strychnine. Anthony finds that tannin and linseed tea assist recovery in some cases in pigs. In the experience of the writer pigs recover rapidly without medication after the toxic principles have been eliminated from the diet.

REFERENCES

ANTHONY, D. J. (1940.) Diseases of the Pig and its Husbandry.
BAYLIS, P. D. Private communication.
CHESTNUT, V. K., and WILCOX, C. (1898.) Principal Poisonous Plants of the U.S.A. (V.S. Dept. Agric., Div. Bot. Bull. 20).
HENSLOW, J. (1934.) Bulletin 75. Ministry of Agriculture and Fisheries.
LANDER, G. D. (1912.) Veterinary Toxicology, 1st Ed.
LONG, H. C. (1934.) Poisonous Plants on the Farm. Ministry of Agriculture and Fisheries Bulletin 75.
M'FADYEAN, J. (1934.) Bulletin 75, Ministry of Agriculture and Fisheries.
SMITH, S. (1928.) Forensic Medicine, 2nd Ed.
WALLACE, R. (1907.) Farm Livestock of Great Britain.
WOOLDRIDGE, G. H. (1934.) Encyclopaedia of Veterinary Medicine, Surgery and Obstetrics, 2nd Ed.

The Diseases of Sheep*

Dr. R. F. MONTGOMERIE, in opening the discussion of the subject of the diseases of sheep, said that the most important thing to be remembered was the fact that the great majority of our sheep existed on a starvation diet, with ewes heavy in lamb during a season of the year when nutriment was desperately low. One often felt that this major factor was not appreciated, particularly as far as hill sheep were concerned. It was not surprising, therefore, that the first disease to be mentioned was "twin lamb" disease, which was prone to occur when the ewes were subject to the rigors of a period of hard weather. Affected ewes were seen to be drowsy, walking slowly, and eventually standing with hanging head. There was no full explanation of its causation and no generally successful line of treatment. His own rough suggestion as to the origin of the condition was that the ewe had a twin pregnancy when the intake was nothing like sufficient. She drew on her considerable store of body fat to maintain the growth of the lambs. This fat had to be carried to the liver for conversion and a resulting overloading of the liver with fat and the by-products of its metabolism might be the cause of the disease. Exercise had been recommended and found to have a beneficial effect.

Twin-lamb disase had been confused with lambing sickness which occurred before but more generally after lambing. This condition was a hypocalcaemia, and one would undoubtedly get a response to the ordinary injection of calcium or to udder inflation.

On the Romney Marshes there was a marked tendency for a ewe which had been helped at lambing to go down with gangrene. Dr. McEwen's work showed clearly that loss was due chiefly to *Cl. chauvoei* infection. It was a practice in the Romney Marshes, if a ewe has to be helped at lambing, to inject 10 c.c. of *chauvoei* serum and there was evidence that this was an effective preventive.

In seasonal sequence one might speak next of lamb dysentery. This was a very serious disease and chiefly affected young lambs from 2 to 10 days old. In a flock not previously affected, losses occurred at the end of the lambing season, while in the following year losses would begin early. It was due to *Clostridium welchii*, type B, usually called the "lamb dysentery bacillus." There was enough evidence to say that the lamb was not born infected, but bacilli were prevalent in soil on infected farms, and the soil contaminated the udder of the ewe; thus the organism gained entrance to the intestinal tract with the first attempts to suck. It multiplied rapidly in the intestine of the young lamb, producing a very lethal toxin. In a typical case one saw a marked ulceration of the small and large intestines and there was very little difficulty in diagnosis. Other cases were less typical and diagnosis more difficult. There were two methods of prevention. One was the injection of the young lamb with serum soon after birth. The second preventive was the vaccination of the ewes.

* Summary of opening address and discussion at the meeting of the South Wales Division, N.V.M.A., held at Swansea, December 4th, 1942.

Dr. Montgomerie mentioned joint-ill in lambs, emphasising its association with lambing pens, and passed to consider mastitis in ewes which he said was almost always due to staphylococci. Frequently it was hyperacute in type, and it was interesting to find that the injection of staphyloccus toxoid had frequently given a very rapid favourable response.

Although diseases associated with tick infestation were not serious in South Wales their place as a cause of sheep losses was so high in the list that they must be mentioned. It was open to debate whether ticks themselves caused serious harm; they were important as carriers of disease. The eradication of the tick was a large problem which was receiving much attention at present, but there was no easy way of doing this and they had turned for the present to the prevention of the diseases which they carried. A serious pyaemia of young lambs was associated with tick bites, and while it was a staphylococcal infection its prevention and treatment had not yet been placed on a satisfactory footing. Tick-borne fever was a mild disease, but louping-ill was a very serious problem. Great credit was due to the A.D.R.A. for their investigations in Scotland which had evolved a successful vaccine.

Continuing the seasonal disease sequence, the next was pulpy kidney disease, which might better be called enterotoxaemia. It was common in lambs 3 to 6 weeks old, but younger animals were affected, and it might cause serious loss among ewes, and in feeding sheep. After describing the symptoms and *post-mortem* appearances in detail Dr. Montgomerie said the preventive measure was the inoculation of serum, for there was no clear evidence that vaccine prepared against the causative organism, *Cl. welchii*, Type D, was successful. In numerous instances serum inoculation had cut short serious loss among lambs and in ewe flocks. The dose recommended was 2 c.c. for young lambs, but for older lambs and ewes it was safer to give 5 c.c. Serum inoculation gave protection only for about three weeks, but until a good vaccine was developed it was the method of choice.

The chief disease of autumn and early winter was braxy, and this term should be confined to a disease of sheep in the first year of life. In Scotland and other districts one got the name "braxy" attributed to all sorts of disease. Vaccination against braxy was highly successful. With one dose, in the majority of flocks, a good level of immunity which would carry sheep through was obtained, but in flocks where the braxy incidence was high it was best to give two doses, separated by an interval of at least two weeks.

Reference was made to the parasitic diseases, but Dr. Montgomerie saw no occasion to amplify Dr. Taylor's address to a previous meeting of the Division.

Dr. Montgomerie concluded by saying that the losses which were occurring on hill sheep farms would never be brought under control until some system was devised whereby veterinary surgeons became concerned in the control of hill sheep diseases, and had a real chance to get into contact with those flocks.

Mr. D. E. Davies asked what differences, if any, were to be found in the clinical manifestations of lambing sickness when the latter developed prior to lambing. In connection with these two, he would also welcome Dr. Montgomerie's views on another vague condition—that commonly referred to as "snow-blindness." On one occasion during a fall of snow he had seen symptoms of blindness in a lot of sheep, some of which were pregnant and others barren yearlings, and all fed readily when brought indoors where hay was offered. Was this yet another separate condition?

Gas gangrene in sheep interested him very much. During the course of his recent activities among hill sheep farmers he had had frequent reports of losses, sometimes serious, amongst ewes at lambing, but more specially some three weeks or a month afterwards, while a few had reported deaths at or soon after shearing. These deaths were all ascribed to inflammation or blackleg. He had not as yet had an opportunity of seeing any of these sheep, and would like to hear Dr. Montgomerie's opinion of the true nature of these conditions. He had formed the impression that deaths which occurred at shearing time were probably due to a *chauvoei* infection of shearing wounds, but that the spring deaths were due to a *welchii* infection.

Lamb dysentery was a disease which he had not had mentioned to him by the hill farmers as yet, but it was, undoubtedly, fairly common on the lowlands in some parts of Wales. Some farmers were already conversant with the methods of prevention, yet much more could be done in this respect, particularly with the method of ewe vaccination.

Having requested the opener to say if there was any clinical difference between joint-ill and chronic lamb dysentery, Mr. Davies asked Dr. Montgomerie for a brief résumé of the latest information with regard to swayback, a disease which he had not mentioned and one which caused very severe losses in some parts of the hilly districts of South Wales during recent years. In particular, he would appreciate his guidance on the most practical methods of administration of copper to mountain flocks.

He would conclude by saying that he was convinced that veterinary surgeons had a wide field of activity open to them in this direction. In the course of his limited activities he had found flock owners very ready to discuss their troubles, and appreciative of any assistance that could be given to them.

Dr. Montgomerie, in replying to Mr. Davies, admitted that he had often been unable to differentiate clinically between pregnancy toxaemia and lambing sickness. He tried calcium injections, although it was a weak way of trying to arrive at a diagnosis. Practically all the lambing sickness he had seen occurred after lambing in which case one could take it to be a calcium deficiency. He had heard the term "snow blindness" used in different parts of the country; he thought it was another name for pregnancy toxaemia, but of course it might be some other disease altogether. With regard to gas gangrene, Mr. Davies was probably correct in his opinion, but much more carefully conducted investigations were needed. Pleading guilty to having missed out swayback, Dr. Montgomerie proceeded to describe the disease and particularly the method of prevention which had been so successfully investigated in Derbyshire.

Mr. Steele-Bodger: Assuming compulsory dosing for worms was instituted, this might be linked with dosage to prevent swayback. The first dosing would be with phenothiazine, and subsequently with copper. He asked Dr. Montgomerie if the amount of copper given on two or three occasions was sufficient to prevent swayback: if so, it would be easier to dose the copper solution than to mix it with feed.

Dr. Montgomerie replied in the affirmative, and pointed out that the class of animal one wanted to dose with phenothiazine was not necessarily the ewe, because so many ewes had become tolerant of parasitic worms and developed an immunity.

Mr. Owen, of Brecon: Although he had never seen a ewe with snow blindness he believed that a condition resembling it did occur when there was snow about. Was there such a thing as contagious pneumonia in sheep? He asked Dr. Montgomerie for his help concerning losses in ewes about February. The farmers turned them on to roots for an hour or two and one or two would die. They showed fits and eventually paralysis and death. He treated them with injections of calcium and chloral by the mouth with good results.

In reply, Dr. Montgomerie said he was glad Mr. Owen had mentioned contagious pneumonia. In the North Wales area there was undoubtedly a contagious pneumonia of sheep which occurred about the month of May. He believed a vaccine could be evolved. The condition occurring in sheep on roots was probably a Type D infection.

Mr. Steele-Bodger: As a rule one did not get lambing sickness and pregnancy toxaemia at the same time. If one of the affected ewes responded to calcium, it could also be effective in the rest of the flock. In winter in the pastures of Scotland one found up to half the flock going down with calcium deficiency before lambing. A Hill Sheep Farming Scheme had been mentioned, and he agreed with the remarks made by Mr. Owen and Mr. Davies to the effect that if one put this scheme to the farmer he would take an interest in sheep diseases, and the profession would be more fully consulted. Mr. Steele-Bodger also made reference to the report to be submitted by the Association to the Hill Sheep Farming Committee, and to the report on sheep diseases which the Association was preparing. He would like Dr. Montgomerie and other members to consider the future of the profession in respect of sheep farming, and particularly hill sheep farming, as a long-term policy for the profession.

Dr. Montgomerie said he believed that the veterinary surgeon had to be brought in touch with hill sheep farmers and some scheme whereby this could be brought about was essential.

Mr. Hall: He had frequently met with so-called "snow blindness" in sheep. Some years ago the disease was non-existent, but now it cropped up quite frequently—often when there was no snow on the ground, for which reason he thought the name a bad one. He would like to know the dosage of copper in the prevention of swayback and when it should be given.

Dr. Montgomerie replied that he, too, had known of the curious occurrence of snow blindness, but, as he had said, he thought the term was often used to cover pregnancy toxaemia. With regard to the giving of copper, in one set of farms in which he was interested only one ounce of 1 per cent. copper sulphate was given soon after tupping, and midway through pregnancy, and very few cases had been experienced.

Mr. Ascott: Dr. Montgomerie had mentioned gangrene after lambing. In North Devon it used to be very common, and farmers lost 10 to 15 each year. He used a serum and did not have one case the following winter. Pulpy kidney disease was also very common in North Devon. Dr. Montgomerie had mentioned a special Type D vaccine; why was it necessary to prepare a special vaccine, as he used the lamb dysentery serum?

Dr. Montgomerie replied that it was agreed that lamb dysentery serum would contain antibodies against pulpy kidney disease toxin, but one could produce a far more potent pulpy kidney serum so that if one knew it was pulpy kidney disease it was more economical to use Type D antiserum than lamb dysentery serum.

Mr. F. V. John: Quite a number of his lambing cases used to die of gangrene, and then he used sulphanilamide, 1 oz. into the vagina, and subsequently had lost none. The Black Mountain area was heavily affected with swayback and several farmers had asked him to try to control this disease for them. The method of administering the copper presented a difficulty, but the farmers had told him that the sheep would readily take concentrates, so he proposed to mix a little in concentrated food. He would like to know the dose to give and how long it should be continued. He thought that by far the easiest way was to treat the pastures with copper as they did in Australia. Had Dr. Montgomerie any experience of this method? He had come across a case where a farmer had put his sheep in for the night in preparation for anthelmintic treatment, and in consequence there had been a serious outbreak of contagious pneumonia.

Mr. John also gave an instance of a farm where, he believed, blackleg occurred. It was a large farm and the farmer had vaccinated against braxy, but still losses took place. He saw one case and all four quarters had typical blackleg lesions. He had now vaccinated with *chauvoei* vaccine, so far with good results. He thought that concentration of sheep on roots was a very important factor in disease, and that farmers who were camping large numbers on arable land should be warned. Mr. John said he thought a scheme should be formulated for the control of hill sheep diseases, but that it should not be limited to hill sheep, as the lowland sheep were of far more value. He held the opinion strongly that the profession should have control of biological products, and that it was very wrong that chemists could get them cheaper than could members of the profession.

Dr. Montgomerie, having expressed his interest in the success of sulphanilamide in controlling gangrene in lambs, went on to say that the best way to get ewes to take copper was to mix it in food. With regard to pneumonia, he agreed that the last thing one should do was to close sheep up for the night in houses.

Mr. T. H. Jones addressed the following questions to Dr. Montgomerie: (1) Was it true that lambs could become affected with swayback even if they grazed on land which was not deficient in copper? (2) He believed that one often had deaths from both blackleg and braxy simultaneously in the same flock. That being so was it possible to produce a mixed vaccine of *Cl. chauvoei* and *V. septique*?

Dr. Montgomerie replied that it was quite possible for swayback to occur on land not deficient in copper, and here one had some agent which prevented the copper being available to the sheep. Provided there was evidence of the need there was no reason why sheep should not be vaccinated against both blackleg and braxy, by using a potent mixed vaccine.

JOINT MEETING ON MILK

A joint meeting of the Food Group (Society of Chemical Industry) and the Nutrition Society will be held on Saturday, July 3rd, 1943, at the London School of Hygiene and Tropical Medicine, Keppel Street, W.C.1, when "Milk" will be the subject under discussion. The Chairman (Professor H. D. Kay) will open the morning session at 11 a.m., when Mr. J. L. Davies will read a paper on "The Production, Supply and Marketing of Milk," discussion to be opened by Dr. W. R. Wooldridge and Professor A. W. Ashby. The papers for the afternoon session are (1) "Bacteriological Aspects of Milk Processing and Distribution," by Professor A. T. R. Mattick, and (2) "The Chemical Composition and Nutritive Value of Milk and Milk Products," by Dr. S. K. Kon. The discussion on the afternoon papers will be opened by Professor G. S. Wilson and (provisionally) Lord Dawson of Penn.

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Weekly Wisdom

"We are quite willing to think that your view is the right one, and would produce all the improvements for which you hope; but then there is not the smallest chance of persuading the only persons able to carry out such a view; why, therefore, discuss it?" No talk is more familiar to us than this. As if the mere possibility of the view being a right one did not obviously entitle it to discussion; discussion being the only process by which people are likely to be induced to accept it, or else to find good grounds for finally dismissing it.—John Viscount Morley: "On Compromise."

CLINICAL COMMUNICATIONS

A Case of Grass Tetany in Winter

J. McCONNACHIE INGRAM, M.R.C.V.S.
and
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Oxted, Surrey

Subject.—A red Shorthorn cow due to calve in approximately one month's time, and turned out with a number of other dry cows.

History.—On January 17th, 1943, one of these cows was found lying in the field apparently in a fit and died within a few minutes of being found. Anthrax was negatived. While removing the remaining cows away from this field the owner observed that the animal, the subject of this report, had a startled appearance and was holding her head rather high, but dismissed it as due to fear of the dog being used to round them up. Next day this cow was found in the field unable to rise and showing convulsive movements.

Symptoms.—The cow lay on her right side the most marked symptoms being tonic spasm of the muscles of the neck, ears and hind legs; the head was drawn upward and backwards with the ears stiffly erect. Flexion of the hind legs was extremely difficult.

Clonic spasm of the muscles of the mouth, nostrils, cheeks and of the eyelids was evidenced, the last-named being in a continual state of flutter. The nictitating membranes were congested and extended well over the eyes. There was a ceaseless grinding movement of the jaws and the lips were covered in froth. Any movement near the animal immediately gave rise to an exacerbation of the symptoms, more particularly the orthotonus and flickering of the eyelids, with convulsive jerking of the whole body and thrashing movements of the hind limbs.

The temperature was 100·2° F.; the pulse was very fast but could not be noted accurately owing to the muscular twitching.

Diagnosis.—Hypomagnesaemia.

Treatment.—Magnesium sulphate, 4 oz. in 1 pint of water, was injected subcutaneously followed half an hour later by 3 oz. of calcium borogluconate in 1 pint of water by the same route on the other side of the body.

The cow was removed home in a float, placed in a loose box and propped up with bundles of straw.

When seen four hours later she was sitting up unaided. The convulsive movements were much less severe, the tonic spasm having disappeared, but the clonic spasm was still marked. The temperature was 101° F. and the pulse 98. A little water had been taken but no food. A further 2 oz. of magnesium sulphate was given subcutaneously.

The cow was again seen the following day and found still recumbent although improvement had been maintained. Clonic muscular spasm was still apparent, the temperature being 101° F. and the pulse 88. It was observed during the examination that the breath had a slight taint of acetone. A further 3 oz. of magnesium sulphate in 16 oz. of water was administered, one-third intravenously and the remainder subcutaneously. The intravenous injection gave rise to an increased respiratory rate and some dejection of the patient, but the rapid abatement of all muscular symptoms and ultimate result justified the apparent temporary setback.

Next day the patient was up, eating and drinking fairly well. The temperature was again normal and the pulse 80. From this date recovery was rapid and uneventful, and parturition occurred normally on February 14th, 1943.

Blood samples were taken on January 18th, 1943, prior to treatment and submitted for examination to Dr. Green, The Laboratory of the Ministry of Agriculture, Weybridge, to whom we are indebted for the following blood picture:—

		Normal Average
Calcium m.g. per c.c. serum ...	5	10
Magnesium " " " ...	0·9	2·5
Acetone " " " ...	4·2	0 to 5
Sugar " " " ...	62	45 to 75

Remarks.—This case has several interesting points:—

1. A marked hypomagnesaemia and hypocalcaemia so long before parturition.

2. Grass tetany is generally regarded as a disease occurring in late spring or early summer when cows have been recently turned out on fresh rapidly growing pasture, although in this locality most of the many cases seen during the late spring of 1942 occurred on very poor pasture.

The pasture of this particular field was abundant although old and the ground marshy, and had been heavily limed the previous

year. The cows were all in a very fat condition and received no extra food beyond what they grazed, and they were permanently turned out.

There can be little doubt that the cow found ill and that which died were similarly affected.

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Strangulation of the Rectum in the Mare by the Utero-ovarian Ligament

AN UNUSUAL COLIC CASE*

J. D. HAWKINS

FINAL YEAR STUDENT, R.V.C.

**Subject.*—An eight-year-old chestnut mare, heavy vanner type.

History.—She was always quiet with other horses, a good worker, and never showed any signs of nymphomania.

Symptoms.—Colic was noticed at about 5.30 a.m. on Friday, December 18th, but the mare gave no indication of violent pain during the day.

Treatment.—She was given linseed oil, turpentine, spts. ether nit., and later chlorodyne and tinct. opii.

Rectal examination revealed an obstruction, the true nature of which could not be determined, in the rectum. Enemas were given but only one or two pints could be introduced. She died between 2 a.m. and 3 a.m. on Saturday morning. Symptoms just before death were not observed.

Post-mortem Examination.—There was some congestion of the small intestine; the rest of the alimentary tract appeared normal except for the rectum. The right ovary could be more aptly described as a large cyst, containing a clear straw-coloured fluid. About 6 in. in diameter, it was approximately spherical and weighed about 2 lb. The ovarian tissue consisted of the wall which was about ¼ in. thick and deeply congested. The left ovary was normal. The utero-ovarian ligament of the right ovary was long and had swung over the rectum; the rest of the utero-ovarian ligament had formed a loop round the ovary, which was now covered with the mesentery supporting the rectum, incarcerating the rectum about 12 in. from the anus and causing the obstructive colic to which the mare had succumbed.

This case is recorded because the writer cannot find another case of a similar nature in the English literature. Williams of America in his book "The Diseases of the Genital Organs in Animals" has stated that large ovarian cysts and the closely associated parovarian cysts, which rarely cause nymphomania have been recorded as causing strangulation of the rectum in the mare. The weight of the cyst causes the stretching of the utero-ovarian ligament which forms a "half-hitch" round the cyst enclosing the rectum.

* This case is recorded with the kind permission of Mr. O'Neill, M.R.C.V.S., of Birmingham, with whom it was seen.

DRUG SUPPLIES FOR LIBERATED CIVILIAN POPULATIONS

It will be someone's job, as the subjugated countries are liberated from Nazi enslavement, to see that adequate supplies of medicines are available and to distribute them to the civilian populations. The matter is under the consideration of a technical advisory committee working with the Ministry of Health, and the Committee has decided that the question of drug requirements can most usefully be studied in the light of the needs of each country during three periods. The first period will be that immediately following the liberation of an area when, in view of the probability that military operations may still be in progress, the machinery for transport and distribution will necessarily be at a minimum so that the list of drugs must be as small as possible. The second period will cover a time when transport and distribution may be easier, but will still be insufficient to supply the full variety of drugs ordinarily in use in each country. A basic list of drugs has been drawn up for the first period showing total quantities required per 1,000,000 of population per month. It is made up of 59 substances and includes anaesthetics, antiseptics, sedatives, cardiac tonics, hypnotics, substances used in ophthalmology and obstetrics, etc. The drugs are to be packed in units for a population of 100,000, for one month, thus ensuring the necessary elasticity to meet the uncertainty as to which countries may be liberated first and the size of the populations that may require drugs. It is impossible to estimate how many units will be needed, but the Committee recommends that steps be taken to prepare stocks sufficient for 20 million people, *i.e.*, 200 units. This basic list only includes those medicaments which a doctor must have in order to save and maintain life. The Committee has accordingly prepared a somewhat longer list for the second period of relief, when stocks sufficient for 30 million people are envisaged.—*Pharm. J.*

ABSTRACTS

[SURVIVAL OF SHEEP NEMATODES IN PASTURES. SHORB, D. A. (1942.) *Agric. Res.* **65**. 329.]

The work of Taylor and R. T. Leiper in England, Kauzal in Australia, Schmid in Germany and Zawadowsky and Vorobiova in Russia has thrown doubt on the prevailing view that nematode larvae persist a long time on pastures. Shorb's work supports these views. He selected pastures with varying degrees of shade and grass on which sheep had never been grazed, and infested these by grazing heavily infested ewes on them for two weeks. Two lambs infested with no nematode except Strongyloides were then grazed on the pastures for two weeks and were then removed to outdoor pens with concrete floors and examined when the larvae they had picked up were mature. At varying periods after these lambs had been removed, two other uninfected lambs were grazed on the same pastures to determine the time when they no longer became infested.

The results indicated that the summer pastures originally infested became free from preparasitic larvae in less than 3½ months (Expt. 1) and in less than 2½ months (Expt. 2). The third experiment indicated that the pastures may become non-infective in two months only and that even abundant grass and shade may not protect the larvae from destruction by climatic conditions. Experiments done in the winter and late autumn indicated that the larvae did not become infective, but a few eggs and larvae of Osteragia and Trichostrongylus survived to become infective during the following spring. There was evidence that larvae of Nematodirus and Ostertagia survived the cold of early spring but did not become infective until late spring. The eggs of *Trichuris ovis* survived on summer pastures for 3½ months.

G. L.

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[ACARIASIS (PNEUMONYSSUS SP.) OF THE UPPER RESPIRATORY TRACT OF THE DOG. MARTIN, H. M., and DEUBLER, M. J. (1943.) (University of Pennsylvania, Vet. Ext. Quart., No. 89.) *University of Pennsylvania Bulletin.* **43**. No. 9. pp. 21-27. (January.)]

Martin and Deubler give a brief morphological description of *Pneumonyssus caninum* based on pubescent and gravid female mites; no males were found. The authors note certain anatomical features which differ from the characters given by Chandler and Ruhe, who first described the mite in 1940. This mite was found in the upper respiratory tract of three dogs in the vicinity of Philadelphia. Specimens were recovered from the frontal sinuses and mucous membrane covering the turbinates and other structures forming the nasal passages of a middle-aged foxhound, which died as the result of injury; from similar situations in a four-year-old golden retriever, which died suddenly without showing symptoms of any kind; and from the frontal sinuses and nasal passages of a six-year-old West Highland white terrier, which exhibited incoordination of movement, loss of control of the front legs, side to side movement of the head, and a later convulsive symptom. There was also loss of appetite, failure to locate food, progressive nervousness and symptoms of fright until death by destruction eight days after the first symptoms appeared. The authors note that symptoms cannot be relied upon for diagnosis of infection by this mite as some animals may exhibit none, while others may show some which could be associated with another condition or disease. Suspicious signs are probably sneezing, head shaking, rubbing the nose and nervous reactions of a mild or perhaps extreme nature. The mite may be commoner in dogs than is supposed, but has remained unrecognised because of the vagueness of the symptoms.

J. N. O.

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[THE ROLE OF THE PRACTISING VETERINARIAN IN THE CONTROL OF COCCIDIOSIS. WICKWARE, A. B. (1942.) *Canad. J. comp. Med.* **6**. 352-357.]

Wickware reviews our knowledge of the various phases of poultry coccidiosis and the prophylactic measures which are helpful in reducing losses from this disease to a minimum. Caecal coccidiosis, due to *Eimeria tenella* infection, affects principally chickens 3 to 10 weeks old and is indicated by the passage of blood giving a dark red or chocolate colour to the droppings; purplish-red, dilated caeca, filled with blood, are noticed in acute cases. Intestinal coccidiosis, due to *E. necatrix* infection, generally affects birds from 10 weeks old to maturity; younger chickens occasionally may be infected. The parasite attacks the upper and middle parts of the intestine and its presence is indicated when sudden deaths occur in a presumably healthy flock without premonitory symptoms of illness. Blood is not passed in the droppings. The head appendages may be cyanosed followed by blanching of the tissues after extensive haemorrhage into the small intestine. *E. acervulina* infection

occurs in the upper part of the intestine and is usually chronic. In extensive infections the entire mucous surface appears greyish, mottled, and somewhat thickened and the parasites develop superficially, appearing on the surface of the intestinal mucosa as whitish or greyish-white elongated transverse masses. No blood is passed in the droppings. *E. maxima, E. mitis* and *E. praecox* infections generally produce little damage to the intestinal mucosa and usually occur as mixed infections with *E. necatrix* and *E. acervulina.*

Discussing practical methods of control where coccidiosis is suspected or evident, Wickware advocates daily cleaning of the birds' quarters for at least a week; floors should be covered with shavings or sawdust to facilitate drying and drinking fountains and food troughs raised on wire mesh racks to prevent contamination by faeces and feeding off the floor by less vigorous chicks. One pound of Epsom salts to each 150 adult birds, given in a moist mash or in the drinking water, serves as a purge to remove any parasites which might later have invaded epithelial cells. Milk, in some form or another, should be added to the regular ration. Birds should be placed on fresh, clean ground after the 7-day period. Precautions against the spread of oöcysts by utensils, clothing and particularly footwear used by attendants must be taken.

J. N. O.

QUESTIONS IN PARLIAMENT

Milk Policy

Sir P. Hurd asked the Parliamentary Secretary to the Ministry of Food whether the Government have decided upon their milk policy, and especially as regards an effectual system of herd inspection and a fair price to producers of high-grade milk; and when this policy will be made public in a White Paper?

Mr. Mabane: I am not in a position at present to state when a further announcement may be made regarding milk policy.

Sir P. Hurd: Is it not a fact that this announcement was due last April? May we know to-day?

Mr. Mabane: It was not clear to me, from the terms of the Question, precisely what aspect of the milk policy my hon. Friend was referring to. Certain parts of the Question seem to refer to matters affecting the Ministry of Agriculture. If he will put down a more precise question, I will give him a more precise reply.

Sir P. Hurd: Does not the White Paper cover both aspects of this matter, and others?

Mr. Mabane: And others, yes.

Doctors and the Beveridge Report

Prior to the adjournment of the House for the Whitsuntide Recess, Dr. Russell Thomas raised the question of what had taken place between the Minister of Health and the medical profession in regard to Assumption B of the Beveridge proposals. He said that the whole medical profession was disheartened and dismayed by the memorandum put forward by the Minister. It had lost confidence in the negotiations with him.

Dr. Morgan said that the present medical services were chaotic and disjointed, there being no unified system. One of the pillars on which the Beveridge report must stand was a complete national comprehensive policy, free and available to all. Medical education should be democratised and brought within the purview of some authoritative body. The privileges of the profession must not be exploited against the public interest.

Mr. E. Brown said that the discussions on the subject fell into three main stages. The first was a preliminary and confidential exchange of ideas with the profession, voluntary hospitals, and local authorities; the second, a published statement on the main issues; and the third, the introduction of draft legislation. The time was drawing near for the second stage—the publication of a statement, perhaps of a White Paper, which would focus for all concerned the main points of the great comprehensive scheme in the Beveridge report. He was amused to hear that it was the intention of the Government to turn the noble profession of medicine into a corps of State lackeys or even to deny the ordinary individual his elementary right to choose his own medical adviser.

Additional powers have been taken by the Ministry of Food under a new Order, S.R. and O. 1943, No. 680, to deal with foodstuffs and premises infested by rats, mice or insects. All pests control undertakings must, in future, be licensed. Such an undertaking includes a firm which is concerned wholly or partly with the manufacture or preparation of any pest control article. The Order requires notification in writing to be made by the owner of infested premises, land, or foodstuffs.

NOTES AND NEWS

The Editor will be glad to receive items of professional interest for inclusion in these columns.

Diary of Events

June 22nd.—Meetings of the North Wales Division, N.V.M.A., at Llangollen; Special Meeting 11.15 a.m.; Ordinary Meeting 2.15 p.m.

July 1st.—Meeting of the Eastern Counties Division, N.V.M.A., at Cambridge, 11 a.m.

July 7th.—Meeting of tht Editorial Committee, N.V.M.A., at 36, Gordon Square, W.C.1, 2.30 p.m.

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ROYAL COLLEGE OF VETERINARY SURGEONS

Mr. W. Nairn elected President

At the meeting of Council held at 16, Bedford Square, W.C.1, on June 10th, the presidency of the Royal College of Veterinary Surgeons was conferred upon Mr. W. Nairn, M.R.C.V.S., of Blairgowrie, Perthshire.

The fact that a decade ago the N.V.M.A. similarly, and to its lasting benefit, elevated William Nairn to highest office makes doubly sure, as it were, the assurance of universal welcome awaiting the Council's choice. The courteous habit North of the Border of bestowing a titular place distinction upon leading figures is not lightly indulged, but " Nairn of Blairgowrie," thanks to his sterling work for the Royal College, for the Association, and for many other bodies with collateral interests, is esteemed throughout our ranks, from experience, as a knowledgeable man whose qualities, more particularly of cool judgment and resource, are such as can now be relied upon to stand the Governing Body and the generality of the profession in good stead in the days ahead wherein vital problems await solution.

The story of his full life—as a practitioner, a research worker in the course of his daily routine, an enthusiast in the sphere of veterinary public health and as a livestock breeder of repute, is told in our issue of October 14th, 1932. More than all these to him, however, is his deep concern for the well-being of the profession and its corporate institutions, and we rejoice to know that to this record of Mr. Nairn's activities there is now to be added the custody of the great tradition of the presidential office of the Royal College: its honour and distinction could be in no safer or more worthy hands.

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PERSONAL

Pilot Officer R. J. Hayhurst's D.F.C.—For gallantry during flying operations against the enemy the Distinguished Flying Cross has been awarded to Pilot Officer Reginald James Hayhurst, R.A.F.V.R. Pilot Officer Hayhurst is a junior meat Inspector at the Metropolitan Cattle Market, and was a third year student at the Royal Veterinary College on the outbreak of war. He is the son of Mr. J. R. Hayhurst, M.R.C.V.S., who for the past 30 years has been Superintendent and Veterinary Inspector at the Market and for the last nine years the Corporation's Chief Veterinary Inspector under the Diseases of Animals Act. At a meeting of the Common Council Mr. Willie Davis, Chairman of the Cattle Markets Committee, brought up a report on the matter recommending that the congratulations of the Court be conveyed to Pilot Officer Hayhurst.

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R.C.V.S. OBITUARY

Death of Lt.-Colonel A. A. Pryer

We learn with deep regret of the death, which occurred suddenly at Droitwich on Sunday last, of Alfred A. A. Pryer, D.S.O., M.R.C.V.S., Temp. Lt.-Colonel R.A.V.C., of 74, Clifford Street, Barnet. Further reference will be made in an early issue.

Rutherford.—Missing after air operations on May 5th, 1943, now officially believed killed, Sgt. Geo. Rutherford, M.R.C.V.S., R.A.F.V.R., aged 28, elder son of Geo. W. Rutherford, M.R.C.V.S., Forres, Morayshire.

IRISH VETERINARY COUNCIL

At a meeting of the Irish Veterinary Council held on June 2nd, 1943, Professor A. F. O'Dea, M.R.C.V.S., D.V.S.M., was elected President and Professor W. Kearney, M.R.C.V.S., elected Treasurer.

The following members were elected to comprise the Standing and Penal Cases and Finance Committees: The President, Treasurer and Mr. James Dodd, M.R.C.V.S., Sligo.

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ILLEGAL SLAUGHTER OF ANIMALS

Speaking at Abergavenny recently, Lord Woolton issued a warning about the illegal slaughtering of animals, a lot of which, he said, is going on in country districts. He stated that he would take away the licence of any farmer-butcher convicted of the illegal slaughter of cattle and thus withholding food from the general public. "I hope magistrates will not fail to exercise the greatest severity against these people," said Lord Woolton. "I shall not, in future, consider that a farmer-butcher who illegally slaughters cattle should be licensed. He will go out of business."

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SAFE MILK AND THE PUBLIC

Under the above heading *The Lancet* in its issue of June 5th says: "The Ministry of Food officials do not yet seem to be health minded as regards milk. To them all milk is just milk, without regard to quality; they are concerned merely with quantity and often fail to appreciate that a large section of the public want and are willing to pay for a safer milk supply. Pending the introduction of some measure of compulsory pasteurisation, which is long overdue, the least the Ministry of Food can do is to allow parents to buy pasteurised or tuberculin-tested milk if they are in a position to obtain it. Under existing arrangements consumers are not allowed to do so. The following is an illustration of the action adopted. A doctor in a northern city wishes to obtain T.T. milk for his 8 months baby just weaned, but his registered supplier cannot furnish it. The local food office refuses to allow a change of milk retailer for the purpose of obtaining T.T. milk. The only circumstance considered to be justifiable reason for change is a medical certificate of illness of the baby. Presumably the proper course, in the view of the Food Office, is for the baby to take the ordinary milk until it is infected by it, when a medical certificate saying so will obtain a better supply. In this case the position is aggravated by the fact that there is no difficulty in obtaining T.T. milk locally, and provisional arrangements were made, only requiring permission from the food office. What then is the object of the Ministry of Health in allowing producers to produce T.T. milk? Surely it is not merely to enable such producers to obtain a higher price per gallon and then encourage them to mix it with the ordinary milk supply, much of it dirty and liable to contain the bacteria of tuberculosis and other diseases. We must suppose it is to enable this better quality milk to be supplied to consumers who appreciate that a safer milk supply is worth paying for. If so, it is time the Ministry of Health took steps to convert the Ministry of Food to its view that milk has an infective as well as a nutritive side."

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Governmental Delay

The Times, in a leading article of June 7th, complained, "Several weeks have passed since the Government promised a statement on milk policy with particular reference to the extension of pasteurisation and the improvement of the health of the dairy herds. This is a matter with which several departments, notably the Ministries of Health, Food and Agriculture, are concerned, and while thorough consultations have no doubt been needed it is hard to understand why there has been so much delay in reaching a decision. . . . The other day the Prime Minister declared that there is no finer investment for any community than putting milk into babies. But everything humanly possible must be done to see that the milk is not likely to carry the germs of disease. It may not be practicable, or indeed desirable, to insist on the compulsory pasteurisation of all milk consumed in the towns. There may be local dairy herds with a clean bill of health which should be exempted from the general rule. The production of milk from tuberculin-tested herds has been increasing steadily. This marks an advance in the eradication of bovine tuberculosis, and all dairy farmers should be encouraged to clear their herds of this disease. It is to be hoped that Government policy, when it is announced, will provide definite encouragement to tuberculin-tested herds.

"At the present time some of the milk from these herds is bulked with ordinary milk, and the producer who has taken special trouble to provide a first-class product naturally feels discouraged. Nor does he get in the selling price a full reward for his pains. But only a small proportion of the country's dairy cows are in regular tuberculin-tested herds. The supervision of the health records of others has been much too lax. In some districts the local authorities arrange for the regular inspection of all dairy herds. In districts only the accredited herds are inspected, and those with no label and no reputation to lose are left alone. This is clearly wrong. Every dairy herd in the country should be inspected by a qualified veterinary man at least once a year. If the staff were available, a quarterly inspection should be the minimum requirement. Unsatisfactory cows must be eliminated before they have time to spread trouble. Farmers are becoming accustomed to inspectors visiting their farms, and as the visits of their war-time advisers so often result in improved crops there is every reason to think that most farmers would welcome rather than resent regular visits from men qualified to advise them on the health of their dairy herds. This side of milk policy is fully as important as insistence on the pasteurisation of supplies to the towns, but both are essential parts of the programme which should be put in hand at once."

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UNITED NATIONS CONFERENCE ON FOOD AND AGRICULTURE

There was general agreement at the above conference, recently held at Hot Springs, Virginia, that the nations represented should establish a permanent organisation in the field of food and agriculture, also that this organisation should act as a centre of information and advice on both agricultural and nutritional questions, and that it should maintain a service of international statistics, an activity which existed at Geneva before the war.

The Conference recommended the establishment in Washington of an interim Commission, one of the functions of which would be to draw up for submission to Governments and authorities represented a detailed plan for the permanent organisation.

CORRESPONDENCE

Letters to the Editor should reach the Office not later than by the first post on Monday morning for insertion in following Saturday's issue.

The views expressed in letters addressed to the Editor represent the personal views of the writer only and must not be taken as expressing the opinion or having received the approval of the N.V.M.A.

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REMOVAL OF OPEN "SAFETY"-PIN FROM OESOPHAGUS

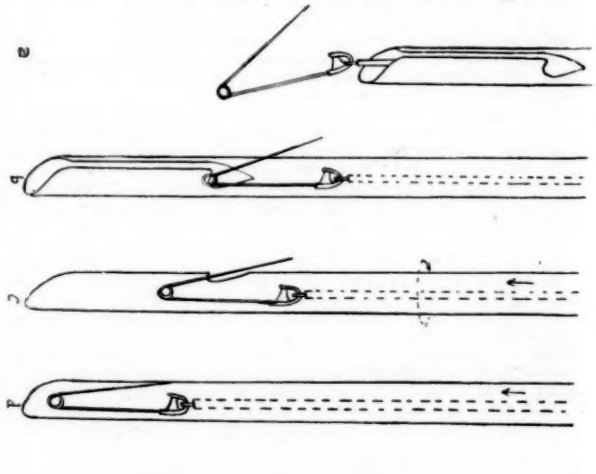
Sir,—Messrs. Knight and Douglas, in their description of the removal of an open "safety"-pin from the oesophagus, state that if the pin had been lying in the reverse position, it would probably have been necessary to perform gastotomy and pass the endoscope from the stomach in order to recover it.

Gastrotomy, however, is not usually necessary in such cases, as the following procedure is generally successful:—

The forceps are carried down the oesophagoscope and the points closed through the ring of the "safety"-pin. The forceps are then manipulated to disengage the point of the pin from the wall of the oesophagus, by pushing gently downwards, and at the same time bringing pressure to bear on the side of the ring of the pin on which the point is, so making that limb of the pin hug the wall of the oesophagus in its descent and avoiding damage by the pin-point. In this way the pin is passed into the stomach, where it is now free but still held by the points of the forceps. The oesophagoscope is then pushed down to the stomach and the pin withdrawn—ring first—into the oesophagoscope.

Incidentally, there are several ingenious pin-closing forceps used in human surgery for dealing with "safety"-pins in this position, such as Lerche's and Jackson's, and the accompanying diagram shows the slotted oesophagoscope used in Mosher's technique.

(*a*) The forceps seize the guard end of the pin, (*b*) the tube is



passed down over the pin, (*c*) the tube is rotated until the pin comes in contact with the secondary slot, and (*d*) the forceps push the pin downwards within the oesophagoscope, after which it can be withdrawn without danger.

Yours faithfully,

285, Heaton Road, W. Colin Welsh.
Newcastle-on-Tyne, 6.
May 29th, 1943.

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"HIPPOMANES"

Sir,—I have read with interest Mr. J. E. Johnson's letter on the subject of "hippomanes," and, as I have maintained a close interest in this enigmatical subject for some five or six years, may I record a few observations.

Personally, I have found no connection between the length of time the placenta is retained and the presence or absence of hippomanes. Furthermore, in the case of the cow, my experience has been that they occur, not as your correspondent states, "often," but rather rarely, although in mares they are a frequent occurrence.

Usually these bodies are floating free, but sometimes, if a careful examination is made, they will be found attached to the placenta by what macroscopically appears to be a reflection of the capsule.

The general consensus of opinion seems to be that these bodies are allantoic in location, but there is great diversity regarding their origin. Some authorities maintain that they are accumulations of uterine milk on the outside of the trophoblast, invaginating the latter into the allantoic cavity, until they are suspended there or break away and float in the allantoic fluid. Others say that they are inspissated parts of the allantoic fluid. Strangely, too, the reports as to their composition are varied, but, as the latter changes throughout gestation, the explanation may lie in the fact that the examinations were made at different stages, although most writers seem to agree that they are substantially composed of degenerated cellular tissue.

As to function, one author consistently found granules of glycogen present, and so deduced that their function is glycogenetic, *i.e.*, that they serve the foetus as a provisionary liver until, at the third or fourth month, the foetal liver is sufficiently developed to assume its function of sugar metabolism. Following this, he asserts that the hippomanes either gradually disintegrate or undergo fatty degeneration with infiltration by granules of calcium oxalate. This calcium content has led other authors to adopt the theory that hippomanes have some function connected with the calcium metabolism of the foetus.

In conclusion, it would appear that since the presence of hippomanes was first recorded in 1667 there has been little progress made in the solving of this problem.

Yours faithfully,

West Blandford Street, John Wharrier.
Newcastle-on-Tyne, 1.
May 31st, 1943.

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VETERINARY SURGEONS ACTS (AMENDMENT) BILL

Sir,—When in 1881 the Veterinary Surgeons Act was passed, 866 persons were registered as "Existing Practitioners," and now, 62 years later, some four of these gentlemen survive. In the then existent state of veterinary education, achievement and progress, most will agree that such a register was necessary, and was no more than a measure of simple justice. As we are now asked to repeat a similar register of unqualified people, there are some details perhaps worth considering. Does anyone know how many names such a register would contain? How many would be concerned with genuine agricultural practice as contrasted with small-animal practice? Is it not certain that the number would be several times that of the 1881 register? If such a register were created, what guarantee could there be that further demands for increased status would not be made? We have already seen a brave kite flown from quarters of influence, suggesting a sub-curriculum, examinations and a "Licentiate Degree": in motor parlance—"You have been warned."

Does anyone believe that the specious legislation suggested will kill quackery, so long as there exists a gullible public which does not know of or appreciate the trained professional man? The medical profession has no doubt considered this same problem, and continues to rely upon its own merits and solid scientific achievements to dispel the fog and mirage of quackery, born of ignorance and stupid credulity. Who has asked for this or any other Bill to fight quackery? Not, I think, those who are engaged in genuine agricultural practice, for surely no practitioner worth his salt fears the competition of any charlatans there. To-day, with a standard of veterinary education, of personnel, and of professional status immeasurably higher than in 1881, we are asked to recognise and give an official blessing to a large number of confessed quacks, on the mere basis that they have for a few years earned a living by pirating our own professional activities. It is said that when all these quacks are dead—say a century or more hence—then quackery will also be dead. That is the bait held out by its partisans to secure acceptance of the Bill, but is it true? This horde of quacks has come into existence without the protection of any register, and will continue to exist despite any register, until public common sense refuses to employ them. Meanwhile, is the profession prepared to mortgage its future destiny, and its freedom to grow in stature and public esteem, by deliberately placing this empirical menace on its back? The sad and even tragic truth seems to be that the monster of quackery can only be destroyed by educating all animal owners to see that we as a profession can "deliver the goods," and by educating ourselves to do so ever more efficiently. In my view a deadly blow has been struck at quackery by the work of the Survey Scheme, and many other lines of attack are open to us. Personally I believe this draft Bill to be already dead, but nevertheless trust that the profession will voice in no uncertain manner its determination to have no dealings with any legislation legalising quackery in any shape or disguise. "Better bear those ills we have than fly to others we know not of."

Yours faithfully,

Prestatyn, E. P. Edwards.
N. Wales.
June 5th, 1943.

Sir,—If the real aim of Council of the R.C.V.S. is to abolish quackery, might I suggest that a Bill to abolish the sale of all dangerous drugs to unqualified persons, whether members of animal welfare societies or not, would accomplish this most effectually?

Once deprive these gentry of the means with which to carry out their activities, and you so limit their field of operations as to render them harmless. Since as laymen they are in no way entitled to use such drugs, such a Bill would not be imposing any hardship upon them.

Yours faithfully,

18, Woodcroft Avenue, F. J. Kinghorn.
Broomhill,
Glasgow.
June 5th, 1943.

Sir,—On March 27th, 1943, in *The Veterinary Record*, I used the liberty, not lightly to be taken, of urging my colleagues, when employing this public column for discussions upon the above, to exercise prudence. Whether or not some of this seed fell upon fertile ground I am not in a position to say, but to judge by the majority of letters which have appeared, it would seem as though within the profession there was naught but very stony ground. Moreover, and outwith the Bill, the impressions created are either that members have very little respect for their fellows who serve in the Council of the R.C.V.S., or that there is less cohesion within the N.V.M.A. than is to be found in that formidable association, formed by late technical officers of corporate welfare societies, to function on behalf of persons outside the profession who are now practising on their own account, namely, the Association of Unregistered Practitioners.

But these appearances, which are more apparent than real, cannot very well be accepted by reflective minds. To members of the profession it must be evident that the majority who have written are unfamiliar to most of us—certainly they are not known as those who, in the past, have advanced the technique or policy of the profession and so contributed to the formation of that background against which the profession is becoming increasingly recognised in service. Nor can these writers hope to impress the profession, *via* any Cromwellian style, in so dealing with a matter which is neither private nor professional in its object, but of public interest.

Personally, I found nebulae in the Draft Bill—but in no instance has the Secretary to Council, R.C.V.S., failed generously and speedily to remit substantial enlightenment and so to dispel such doubts as I have known and which may be common to many others. The general adoption of this principle would, I am sure, avoid the misconceptions which may arise from recent letters—letters which, I say without any apology, are characterised by absence of any constructive criticism: to me they seem to be born of careless reading, careless reasoning and careless writing—letters which can hope to serve no other purpose than malign the Council and the office-bearers, who, after all, are not meantime in the privileged position to leave the "wicket" to make suitable reply to forms of "barracking" which honour neither the writers nor the profession.

Yours faithfully,

Small Animal Clinic, George Dykes.
6, Douglas Street,
Glasgow, C.2.
June 5th, 1943.

NOTICES

ORIGINAL Articles are accepted only on the understanding that the "Veterinary Record" has priority of publication.

IT must be understood that the acceptance by the National Veterinary Medical Association of an advertisement for either the professional or commercial ("display") section does not imply a recommendation and that no responsibility is accepted with regard to the accuracy of any claims made or other statements therein contained.

"VETERINARY RECORD" AND CHANGES OF ADDRESS

READERS are asked to send to 36, Gordon Square, W.C.1, notification of any change in their address by MONDAY MORNING if they wish the following Saturday's issue of "The Veterinary Record" to be sent to the new address. In so doing, members and subscribers are requested to intimate their previous address.

The publication of this notice is prompted by the number of readers who notify change of address too late for any alteration to be effected before the following week.

North Wales Division, N.V.M.A.

A MEETING of the above Association will be held at "The Armoury, Llangollen," on Tuesday, June 22nd, 1943, at 2.15 p.m.

AGENDA

Routine; Appointment of Officers to serve on N.V.M.A. Council; Address by Professor T. Dalling, Weybridge, on "The Control of Diseases of Livestock in relation to recent research work"; Any other business.

A Special Meeting will be held at 11.15 on Tuesday, June 22nd, at "The Armoury."

BUSINESS.—To discuss further the R.C.V.S. Draft Veterinary Surgeons Acts (Amendment) Bill, and to formulate resolutions for submission to the Council of the N.V.M.A.

J. N. BOWEN, *Hon. Secretary.*

Eastern Counties Division, N.V.M.A.

A GENERAL Meeting of the Society will be held at the Institute of Animal Pathology, Milton Road, Cambridge, on Thursday, July 1st, 1943, at 11 a.m., with the President, H. P. Standley, jun., Esq., M.R.C.V.S., in the chair.

All members of the profession will be welcome.

AGENDA

Morning Session—11 a.m.: Routine (6 items); Address by C. W. Wright, M.A., Institute of Animal Pathology, Cambridge, entitled "Some Plants Poisonous to Livestock."

Afternoon Session—2 p.m.: Presidential Address; Address by T. Dalling, Esq., M.A., M.R.C.V.S., entitled "The Laboratory and Field Aspects of the Control of Diseases of Livestock"; Any other business.

B. A. CLAXTON, *Hon. Secretary.*

PROFESSIONAL ADVERTISEMENTS

These will be received at 36, GORDON SQUARE, W.C.1 up to TUESDAY MORNING

For Members of the Association
First insertion: 1/- for each six words or less, minimum 18 words (3/-) *Repeat insertion*: 6d. for each six words or less, minimum 18 words (1/6).

Public Bodies, Institutions and Non-Members
First insertion: 2/6 for each six words or less, minimum 18 words (7/6). *Repeat insertions*: 1/3 for each six words or less, minimum 18 words (3/9).

Veterinary Students
First insertion: 8d. for each six words, minimum 18 words (2/-). *Repeat insertions*: 4d. for each six words, minimum 18 words (1/-).

Box Number Fee
1/- irrespective of number of insertions. *These Advertisements will not be inserted unless prepaid.*

Replies to Box Numbers should be addressed to the appropriate Box at the Office. Telegrams addressed to Box Numbers will be forwarded by post unless accompanied by a "reply paid" form.

APPOINTMENTS VACANT

APPLICANTS for posts are requested not to enclose original testimonials when replying to advertisements. Copies answer the same purpose and cause no inconvenience if mislaid.

WANTED, as early as possible, experienced temporary Assistant for three months (with possible permanency) for mixed town and country practice.—Castle & Leason, 14, Museum Street, Ipswich.

LOCUM required for agricultural practice in Midlands, from July 20th to August 3rd.—Box 20.

WANTED shortly, male Assistant in mixed small-animal and agricultural practice, South-West England. Live out. Permanency to suitable man, if desired. Age, height, experience and other particulars to Box 22.

LOCUM for mixed practice as soon as possible. References and particulars.—Wm. F. Kochan, The Beeches, Spilsby, Lincs.

WANTED, experienced Assistant for mixed country practice, 30 miles London. Live out. Must be able to take temporary charge practice when necessary.—Box 23.

WANTED, male Assistant in general practice and Scheme work (Shropshire). Single and live out. Interview essential.—Box 24.

WANTED, single male Assistant, recent graduate would do, for agricultural practice in South-West. Some knowledge of obstetrics and sterility work essential. Live in. State full particulars.—Box 29.

ASSISTANT wanted, mixed country practice, South-West. Live in.—Box 31.

WANTED, junior Assistant in extensive country practice. Knowledge of sterility work essential.—Box 33.

LOCUM, young, motorist, from June 26th for few weeks; West Midlands. Chiefly canine.—Box 34.

ASSISTANT wanted (male), extensive country practice, Panel A; early Partnership; references.—Box 35.

ASSISTANT wanted immediately, country practice; live in. Please send full particulars.—Hall, Knaresborough, Yorks.

APPOINTMENTS REQUIRED

DAVID Haxton wishes to thank correspondents. Has received position.

1937 Graduate desires Post with view to Partnership and preferably Succession, mixed or mixed country practice. Capital available.—Box 17.

1941 Graduate, experience Survey Scheme work and general practice, seeks Assistantship with first-class practitioner. Own car available.—Box 18.

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